

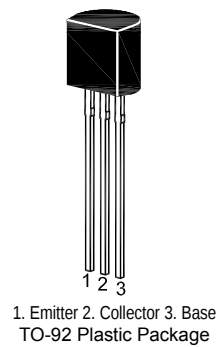
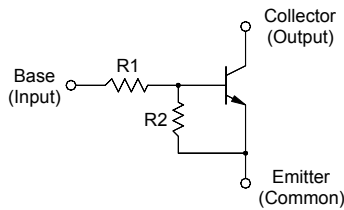
RC101S...RC106S

NPN Silicon Epitaxial Planar Transistor

for switching and interface circuit and drive circuit applications

Features

- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process



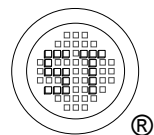
1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

Resistor Values

Type	R1 (KΩ)	R2 (KΩ)
RC101S	4.7	4.7
RC102S	10	10
RC103S	22	22
RC104S	47	47
RC105S	2.2	47
RC106S	4.7	47

Absolute Maximum Ratings (T_a = 25 °C)

Parameter		Symbol	Value	Unit
Output Voltage		V _O	50	V
Input Voltage	RC101S	V _I	20, -10	V
	RC102S		30, -10	
	RC103S		40, -10	
	RC104S		40, -10	
	RC105S		12, -5	
	RC106S		20, -5	
Output Current		I _O	100	mA
Total Power Dissipation		P _{tot}	200	mW
Junction Temperature		T _j	150	°C
Storage Temperature Range		T _{stg}	- 55 to + 150	°C



RC101S...RC106S

Characteristics at $T_a = 25\text{ °C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_O = 5\text{ V}$, $I_O = 10\text{ mA}$	G_I	30	-	-	-
RC101S		50	-	-	-
RC102S		70	-	-	-
RC103S		80	-	-	-
RC104S		80	-	-	-
RC105S		80	-	-	-
RC106S		80	-	-	-
Output Cutoff Current at $V_O = 50\text{ V}$	$I_{O(OFF)}$	-	-	500	nA
Input Current at $V_I = 5\text{ V}$	I_I	-	-	1.8	mA
RC101S		-	-	0.88	
RC102S		-	-	0.36	
RC103S		-	-	0.18	
RC104S		-	-	3.6	
RC105S		-	-	1.8	
RC106S		-	-	1.8	
Output Voltage at $I_O = 10\text{ mA}$, $I_I = 0.5\text{ mA}$	$V_{O(ON)}$	-	-	0.3	V
Input Voltage (ON) at $V_O = 0.2\text{ V}$, $I_O = 5\text{ mA}$	$V_{I(ON)}$	-	-	2	V
RC101S		-	-	2.4	
RC102S		-	-	3	
RC103S		-	-	5	
RC104S		-	-	1.1	
RC105S		-	-	1.3	
RC106S		-	-	1.3	
Input Voltage (OFF) at $V_O = 5\text{ V}$, $I_O = 0.1\text{ mA}$	$V_{I(OFF)}$	1	-	-	V
RC101S~104S		0.5	-	-	
RC105S~106S		0.5	-	-	
Transition Frequency at $V_O = 10\text{ V}$, $I_O = 5\text{ mA}$	$f_T^{1)}$	-	200	-	MHz

¹⁾ Characteristic of transistor only.

